11-09-04

ATTORNEY DOCKET NO: MIC-35 IP50-0116)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

3617
JDF

In re Application of: George Phillips O'Brien, et al.

Serial No: 10/681,895

Filed: October 9, 2003

Confirmation No:

Title: Acoustic Signal Monitoring System For A Tire

Group Art Unit: 3617

Examiner: Frantz F. Jules

Our Client ID: 34043

Our Account No: 04-1403

Commissioner for Patents
U.S. Patent and Trademark Office
Post Office Box 1450
Alexandria, VA 22313-1450

RESPONSE

This is a response/amendment/letter in the above-identified application and includes the herewith attachment of same date and subject which is incorporated hereinto by reference and the signature below is to be treated as the signature to the attachment in absence of a signature thereto.

Fee requirements (if any) have been calculated as shown below:

	Claims remaining after amendment		Highest number previously paid for		Present Extra		Additional Fee
Total Effective Claims	_____	minus	_____	=	_____	X $18 =	$ .00
Independent Claims	_____	minus	_____	=	_____	x $88 =	$ .00

If amendment enters proper multiple dependent claim(s) into this application for first time, add $290.00 (per application) $ .00

Since Official Action set an original due date of _____, **PETITION** is hereby made for an extension to cover the date this response is filed for which the requisite fee is enclosed (1 month $110; 2 months $430; 3 months $980; 4 months $1530) $ .00

If Terminal Disclaimer enclosed, add Rule 20(d) Official Fee ($110.00) $ .00

SUBTOTAL: $ .00

If "small entity" verified statement filed [ ] previously,
[ ] herewith, enter one-half (½) of subtotal and subtract - $ .00

TOTAL: $ .00

Other: _____ $ .00

TOTAL FEE ENCLOSED: $ .00

The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any fees in addition to the fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (deficiency only) now or hereafter relative to this application and the resulting official document under Rule 20, or credit any overpayment, to our Account No. shown in the heading hereof for which purpose a duplicate copy of this sheet is attached. This statement does not authorize charge of the issue fee in this case.

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DORITY & MANNING, P.A.
ATTORNEYS AT LAW, P.A.

By: Tim F. Williams Reg. No: 47,178 Date: November 8, 2004

Signature: _____

I hereby certify that this correspondence and any referenced attachment and fee are being deposited with the United States Postal Service **"Express Mail Post Office to Addressee"** service under 37 CFR 1.10 on the date indicated below in an envelope addressed to:

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ATTORNEY DOCKET NO.: MIC-35 (P50-0116)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: O'Brien, et al.	)	Examiner: Frantz F. Jules
Application No.: 10/681,895	)	Art Unit: 3617
Filed: October 9, 2003	)	Our Account No. 04-1403
For: Acoustic Signal Monitoring System For A Tire	)	Our Customer No. 34043

RESPONSE

Mail Stop Response to Office Action
Commissioner for Patents
Post Office Box 1450
Alexandria, VA 22313-1450 20231

Sir:

In response to the Office Action of October 28, 2004, in the above-captioned application, Applicants respectfully request the Examiner's consideration of the following:

Claims 1-21 are currently rejected under 35 U.S.C. § 103(a) as being unpatentable over Magiawala et al. in view Kyrtsos. For the reasons that follow, Applicants respectfully traverse this rejection.

First, Applicants respectfully submit that the proposed combination of Magiawala et al. and Kyrtsos is improper because such would change the purpose and principle of operation of both Magiawala et al. and Kyrtsos. More specifically, Magiawala et al. requires that the sensors are mounted either inside the tire or on the wheel rim. See Col. 3, lines 46-49. Such a location is required because Magiawala et al. is using sensors that measure lateral and/or radial acceleration of the tire itself. Mounting the sensors of Magiawala et al. on the vehicle itself would destroy the principle of operation of Magiawala et al. and prevent it from functioning properly. In contrast,

claims 1 through 11 of the present invention require a sound monitoring device for mounting on the vehicle – not the tire. Claims 12 through 21 require that the sound monitoring device is carried by the vehicle. Placing the sound monitoring device of the present invention within the tire would prevent the device from working properly in certain situations. For example, if a tire were to suffer a tread separation, the sound monitoring device itself could be damaged or destroyed – thereby preventing it from operating at all.

Kyrtsos provides for a method for monitoring the sounds of a driveline in order to determine whether the driveline may be experiencing a problem (see the abstract of Kyrtsos). Kyrtsos defines the driveline on Col. 2, ll. 39-41 as follows:

> In the present invention, a driveline includes parts that connect the transmission with the driving axles of a vehicle.

Kyrtsos is therefore explicitly directed towards the driveline of a vehicle only, and discloses nothing regarding the monitoring of a tire of the vehicle or possible damage condition of the tire. The tires of a vehicle are not included in the driveline - tires form no part of the vehicle that connects the transmission of the vehicle with the driving axles of the vehicle. Instead, tires are separate, additional elements located on either end of the axles of the vehicle. Modification of Kyrtsos to instead determine whether the tires of the vehicle were experiencing a tire damage condition would completely change the intended purpose of Kyrtsos since the method would now be focused upon the tires of the vehicle as opposed to the driveline. Furthermore, the principle of operation of Kyrtsos would be changed as the sound detector of Kyrtsos would have to be configured to monitor the tires as opposed to the driveline. In contrast, claims 1-21 of the present invention require a sound monitoring device that produces an output based on the sound created by at least one tire during rotation – not a driveline.

Thus, Applicants respectfully submit that the rejection of claims 1-21 as obvious in view of a combination of Magiawala et al. and Kyrtsos is improper because such would require changing the purpose and principle of operation of both of these references.

Second, Applicants respectfully submit that the proposed combination of Magiawala et al. and Kyrtsos is improper because these references, whether standing alone or in combination, do not contain all of the limitations of any of the rejected claims. Magiawala et al. is directed to tread wear, shock absorber performance, balance condition, and rotation speed (Col. 1, lines 33-44) – but nowhere discloses an output signal based on potential damage condition of the tire. Krytsos is directed to monitoring the driveline of a vehicle, which does not even include a tire as previously discussed – much less a physical damage condition to a tire. In contrast, claims 1-11 of the present invention require a signal processing device the produces a processing device output signal representative of a potential damage condition of the tire. Claims 12-21 of the present invention require a signal process device that can produce an output signal upon detecting a predetermined degree of tread belt separation. Again, neither Magiawala et al. nor Kyrtsos contain any such element or teaching.

Thus, Applicants respectfully submit that the rejection of claims 1-21 as obvious in view of a combination of Magiawala et al. and Kyrtsos is improper because neither of these references, whether in combination or viewed separately, contains all of the limitations of the claims of the present application.

Finally, Applicants respectfully submit that even if a combination of Magiawala et al. and Kyrtsos could overcome the deficiencies noted above, there is no motivation to combine these

references together. The Examiner indicates that the combination would be made "in order to reduce error resulting from using physical observation of the tire". However, the Examiner provides no reference to any teaching that any such errors exist. More specifically, the Examiner provides no reference to any teaching suggesting that errors are more likely to occur in physically examining a tire as for a tire damage condition as opposed to using a sound monitoring device as in the present application. Next, the Examiner indicates that the combination would be made "in order to reduce error resulting from using. . . faulty sensors on the tire thereby reducing time and accuracy in the measurement." However, both Magiawala et al. and Krytsos make use of some type of sensor. Thus, to the extent sensors contain some kind of inherent fault as suggested by the Examiner, combining these references does not solve such problem. Nor is there any teaching that placing the sensors on the tire somehow renders the sensor faulty. To the contrary, as discussed above, Magiawala et al. actually indicates that the sensor should either be on the tire or the wheel rim. In summary, there simply is not suggestion to one of ordinary skill in the art to combine Magiawala et al. and Kyrtsos.

Thus, Applicants respectfully submit that the rejection of claims 1-21 as obvious in view of Magiawala et al. and Krytsos is improper because there is no suggestion in the prior art to make such combination.

Applicants respectfully submit that claims 1-21 are allowable and that the application is in condition for allowance. Favorable reconsideration and action thereon is respectfully requested. The Examiner is encouraged to contact the undersigned at the Examiner's convenience should the Examiner have any questions concerning this matter or require any additional information.

Respectfully submitted,

DORITY & MANNING, P.A.

8 NOVEMBER, 2004
Date

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EXPRESS MAIL CERTIFICATE OF MAILING

In re Application of: George Phillips O'Brien

Entitled: Acoustic Signal Monitoring System For A Tire

USSN: 10/681,895

Filed: October 9, 2003

Attorney Docket No.: MIC-35 (P50-0116)

"Express Mail" – Mailing Label Number: EV599453127US

Date of Deposit: November 8, 2004

I hereby certify that this paper and all attachments and any fee are being deposited with the U.S. Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the:

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Darlene G. Parker
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